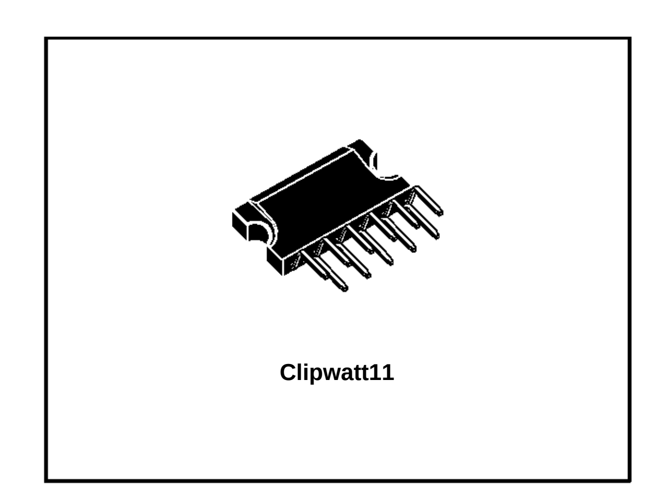


TDA7253

8W AMPLIFIER WITH MUTING

- WIDE SUPPLY VOLTAGE RANGE
- 8W @ V_S=26V, R_L = 8Ω, THD=10%
- MUTE FACILITY (POP FREE) WITH LOW CONSUMPTION
- AC SHORT CIRCUIT PROTECTION
- THERMAL OVERLOAD PROTECTION (150°C)

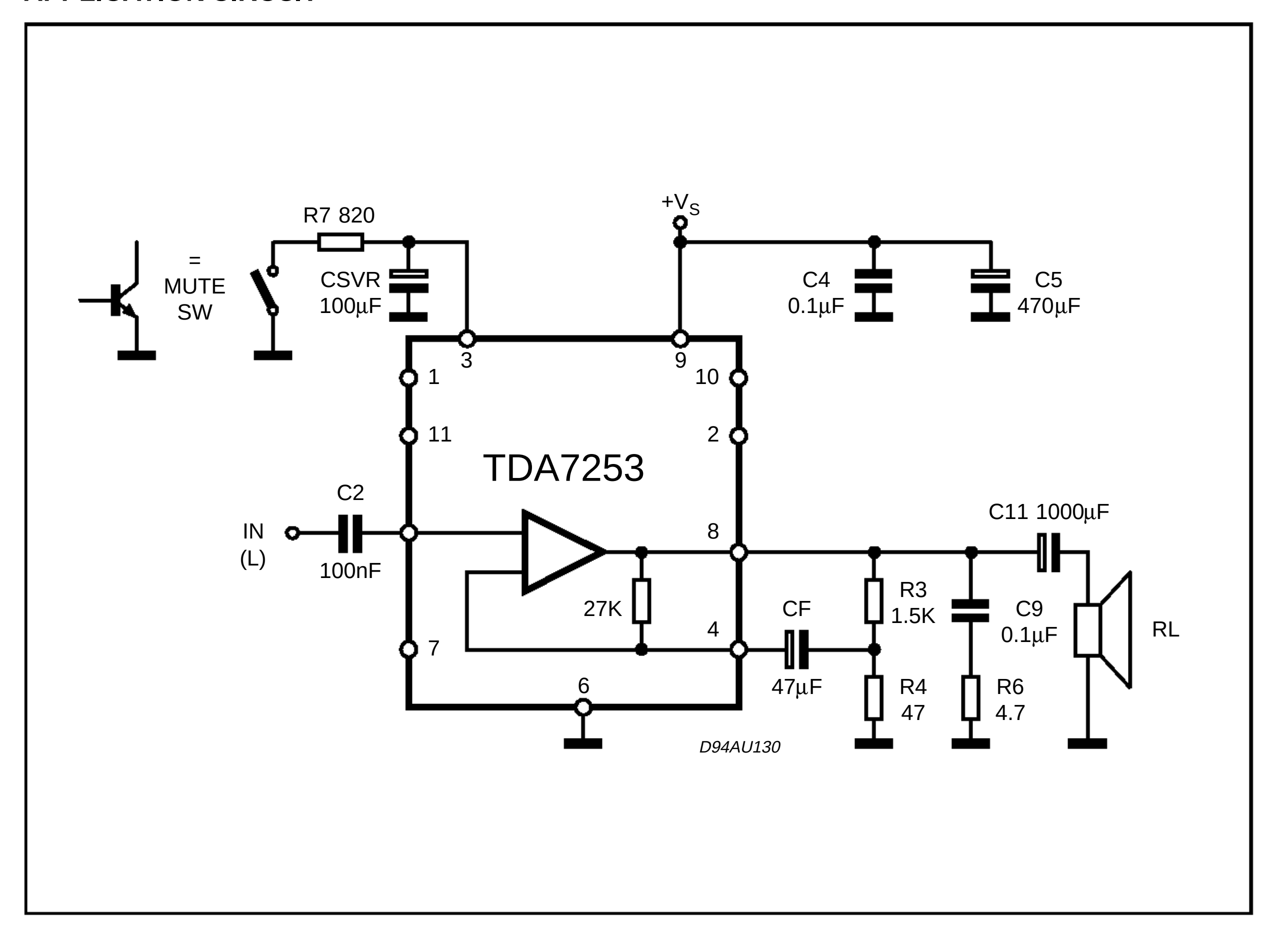


Clipwatt11

DESCRIPTION

The TDA7253 is class AB audio power amplifier assembled in the new Clipwatt package.

APPLICATION CIRCUIT



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_S	Supply Voltage	35	V
I_O	Output Peak Current (repetitive f >20Hz)	2.5	A
I_O	Output Peak Current (non repetitive, t = 100µs)	3.5	A
P_{tot}	Total Power Dissipation (T_{case} = 70°C)	25	W
T_{op}	Operating Temperature Range	0 to 70	°C
$T_{stg,Tj}$	Storage & Junction Temperature	-40 to 150	°C

PIN CONNECTION (Top view)

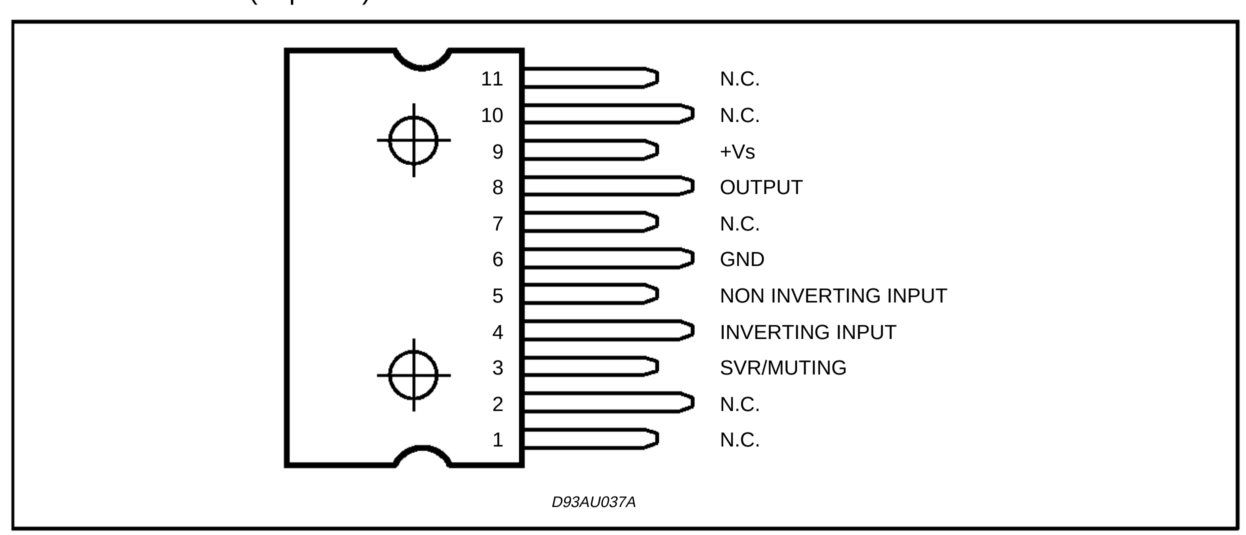
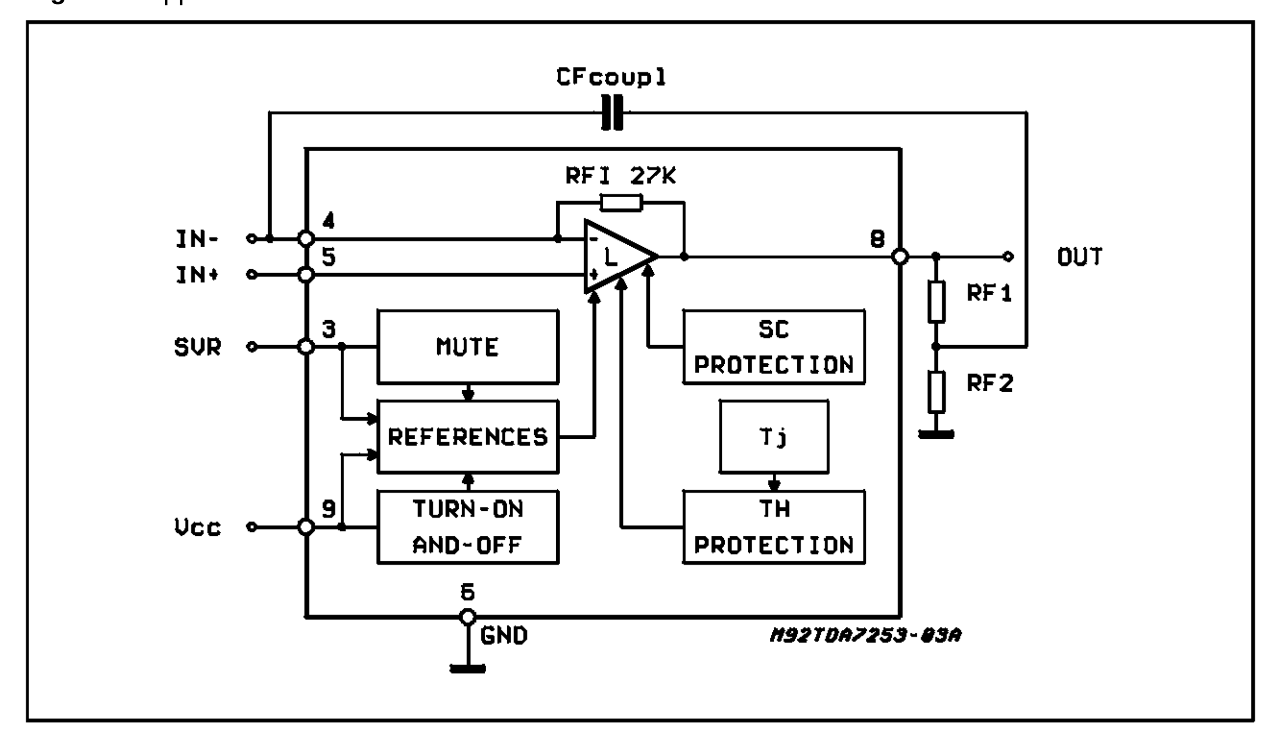


Figure 1: Application Circuit



THERMAL DATA

Symbol	Parameter	Value	Unit
$R_{th\ j\text{-}case}$	Thermal resistance junction to case Max	3	°C/W

ELECTRICAL CHARACTERISTICS (Refer to the test and application circuit, V_S = 26V; R_L = 8Ω; G_V = 30dB; f = 1KHz; T_{amb} = 25°C unless otherwise specified.)

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
V_S	Supply Voltage		10		32	V
V_O	Quiescent Output Voltage			12.5		V
I_q	Total Quiescent Current			40		mA
P_O	Output Power	d = 10% d = 1%	8	10 8		W W
d	Total Harmonic Distortion	P_O = 1W		0.03		%
R_I	Input Resistance		100	200		KΩ
f_L	Low Frequency Roll-off (-3dB)			40		Hz
f_H	High Frequency Roll-off (-3dB)			80		KHz
e_N	Total Input Noise Voltage	A Curve; R_S = 10KΩ		2		mV
		f = 22Hz to 22KHz; R_S = 10KΩ		2.5	10	µV
SVR	Supply Voltage Rejection	R_S = 10KΩ; f = 100Hz; Vr = 0.5V		60		dB
VT_{MUTE}	Mute Threshold			0.8		V
VT_{PLAY}	Play Threshold		5			V
A_M	Mute Attenuation		80	100		dB
I_{qMUTE}	Quiescent Current Mute			7	10	mA

Note: to avoid pop-on noise $\frac{C_F}{C_{SVR}} \leq 1$

Figure 1: Output Power vs. Supply Voltage

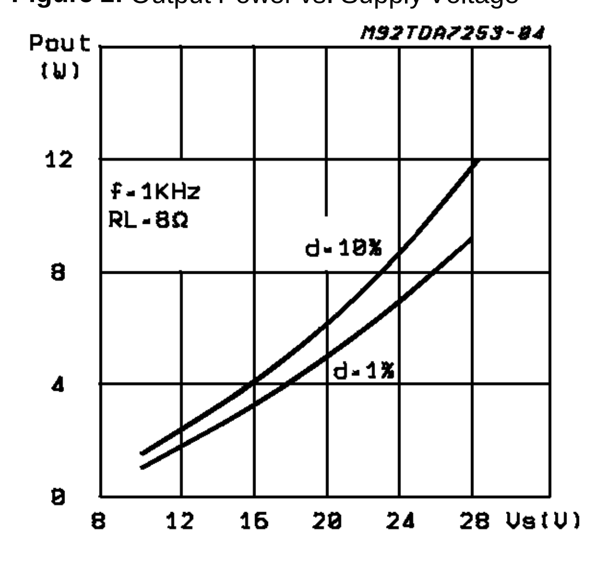
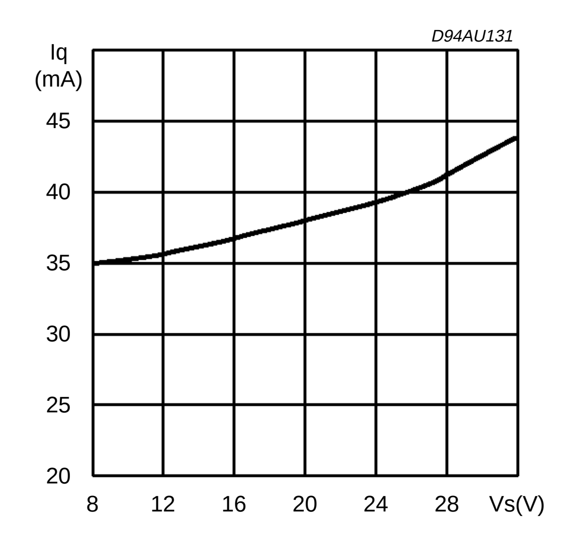
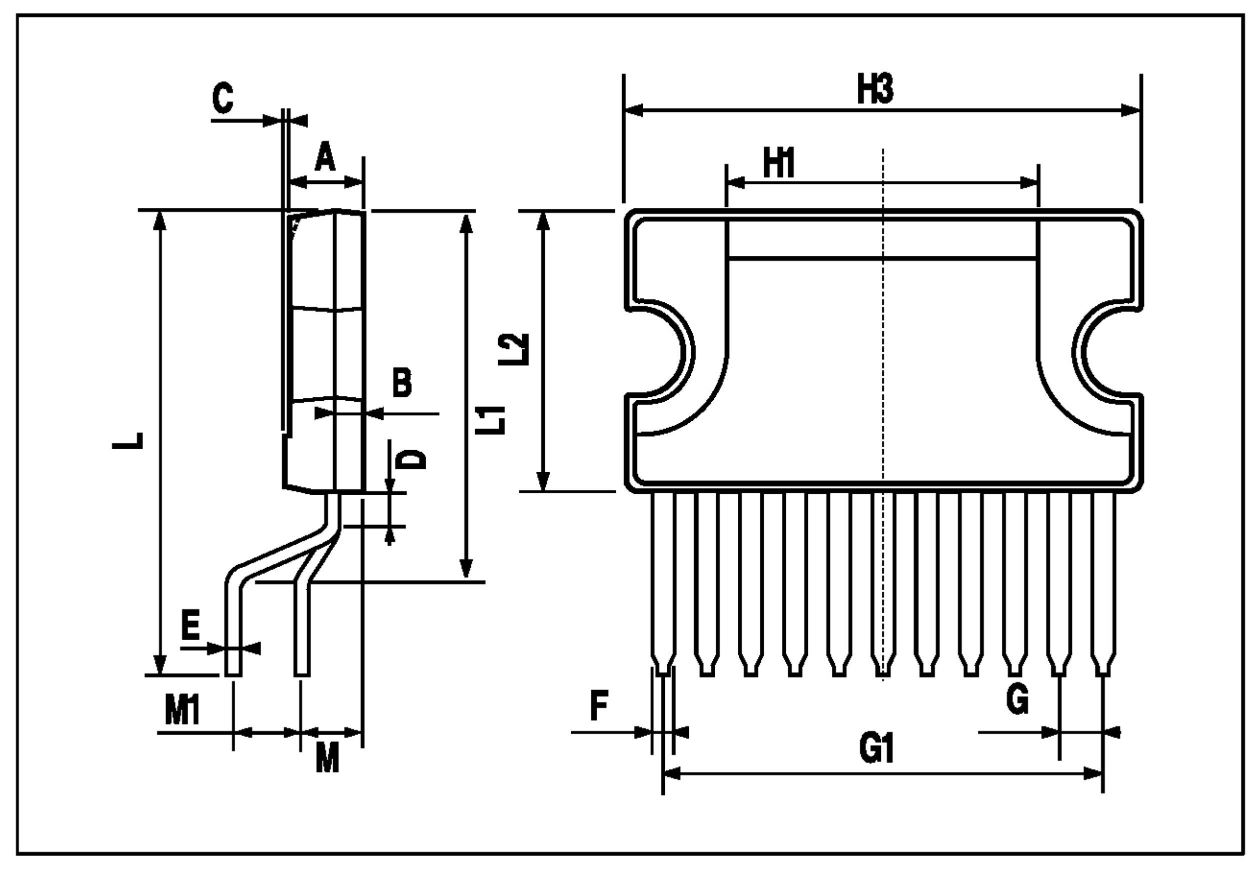


Figure 2: Quiescent Current vs. Supply Voltage



CLIPWATT11 PACKAGE MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A			3.10			0.122
B			1.10			0.04
C		0.15			0.006	
D		1.50			0.059	
E		0.52			0.02	
F		0.80			0.03	
G		1.70			0.066	
G1		17.00			0.66	
H1		12.00			0.48	
H3		20.00			0.79	
L		17.90			0.70	
L1		14.40			0.57	
L2		11.00			0.43	
M		2.54			0.1	
M1		2.54			0.1	




SGS-THOMSON
MICROELECTRONICS